# CLAIMS

1. A method for designing software components for integration into any system without additional coding, the method comprising: adopting a uniform application programming interface that breaks down external objects to include the characteristics of object, attribute, and method. Ideally, the characteristics include create object, delete object, read attributes, write attributes, and invoke behavior.

2. A software tool for providing communication between an API and a data source, the tool comprising: a join engine adapted to provide communication between at least one view and at least one base source associated with the data source, the join engine further adapted to update the at least one base source in response to updates to the view.

3. The tool of claim 2, wherein the join engine is configured to support on the at least one base source operations of create object and delete object on the at least one view.

4. The tool of claim 2, wherein the join engine is configured to map events in the at least one base source to the at least one view.

5. The tool of claim 2, wherein the join engine is configured to create virtual attributes based on the view through expressions performed on the view.

6. The tool of claim 5, wherein the expressions comprise algebraic expressions, names, strings, and functions.